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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,796	10/30/2003	Kazuyoshi Torii	Q78216	8917

23373 7590 01/25/2008

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EXAMINER	
WALFORD, NATALIE K	

ART UNIT	PAPER NUMBER
2879	

MAIL DATE	DELIVERY MODE
01/25/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/695,796	TORII ET AL.	
	Examiner	Art Unit	
	Natalie K. Walford	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-6,9,12-18 and 21-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-6,9,12-18 and 21-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 30, 2007 has been entered.

Response to Amendment

The Amendment, filed on October 30, 2007, has been entered and acknowledged by the Examiner. Newly added claim 30 has been entered. Claims 1, 2, 4-6, 9, 12-18 and 21-30 are pending in the instant application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-2, 4-6, 9, 12, and 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osamura (US 6,215,235) in view of Takamura et al. (US 4,581,558) in further view of Kanao et al. (US PUB 2001/0030495).

Regarding claim 1, Osamura discloses a method for manufacturing a spark plug (item 1) in figures 1 and 2, which comprises a tubular metallic shell (item 15), a tubular insulator (item 11) extending in an axial direction of the metallic shell and fixed in the metallic shell with opposite ends of the insulator protruding from corresponding opposite ends of the metallic shell, a center electrode (item 28) extending in the axial direction of the metallic shell and fixed in the insulator with a distal end of the center electrode protruding from a distal end of the insulator and with a rear end of the center electrode fixed in the insulator, and a ground electrode (item 29) with one end of the ground electrode fixed to the metallic shell and with the other end portion of the ground electrode and the center electrode forming a discharge gap therebetween (item 27), and in which at least one of the center electrode and the ground electrode comprises an electrode base metal (item 2) and a chip (item 3) provided on the electrode base metal at a position for forming the discharge gap and formed of a spark erosion resistant material (column 8, lines 4-5), the method comprising:

(1) providing a chip (item 3) made of a spark erosion resistant material (column 8, lines 4-5) comprising a protrusion (item 3) protruding from a first face of the chip (see FIG. 3);

(2) tentatively joining, a second face of the flange portion opposite the protrusion to a joint face (item 42) of the electrode base metal of at least either one of the center electrode and the ground electrode, the joint face being located on a side toward the discharge gap (FIGS. 1 and 2);

(3) applying a laser beam (item 5) to the flange portion of the chip in an oblique direction to the joint face of the electrode base metal of at least either one of the center electrode and the ground electrode; and

(4) laser-welding (column 7, lines 45-51) the flange portion to the joint face such that to form a weld portion (item 4) comprising components of the chip in an amount of 20% by mass to 80% by mass (column 7, lines 51-53) between the electrode base metal and the chip, said weld portion extending both outwardly (FIGS. 1 and 3) and a distance of D/5 or more inwardly of imaginary extension lines of generatrices of a side surface of the protrusion (FIGS. 1 and 3 and column 7, lines 61-65) and extending below a lowest end of an outer surface of the laser-weld portion, where D represents a maximum distance between said extension lines, and that part of the flange portion extending outside said imaginary extension lines being entirely subsumed within the weld portion (FIGS. 1 and 10), but does not expressly disclose that the spark erosion material is a Pt alloy and that the chip comprises a flange portion, said flange extending outward of imaginary extension lines of generatrices of a side surface of the protrusion, as claimed by Applicant. Takamura is cited to show a spark plug in figure 6 with a chip (item 3) made of a spark erosion resistant material (column 2, lines 40-45). Takamura teaches that if the chip is made from an alloy containing 20% iridium, nickel and the balance platinum joined through resistance welding to the electrode that the thermal stresses developing from the difference in thermal expansion between the chip and electrode are more readily absorbed by the cushioning action of the chip (column 5, lines 29-53). Takamura also teaches that it is possible to prevent thermal stresses from exerting radical influences on the chip, so that occurrence of rupture along the surface where the chip and electrode are welded can be avoided (column 5, lines 54-61). Kanao is cited to show a spark plug in figure 2 with a chip (item 60) that has a flange portion (item 62), the flange extending outward of imaginary extension lines of a side face of a

protrusion (item 61). Kanao teaches that the flange portion is formed with the chip (paragraph 44).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Osamura's invention to include the spark erosion material is a Pt alloy and that the chip comprises a flange portion, said flange extending outward of imaginary extension lines of generatrices of a side surface of the protrusion as suggested by Takamura and Kanao to prevent thermal stresses from exerting radical influences on the chip and to have the chip formed with the flange portion.

Regarding claim 2, the combined reference of Osamura, Takamura, and Kanao disclose the method for manufacturing a spark plug as claimed in claim 1, wherein the joint face is located on the electrode base metal of the ground electrode on a side toward the discharge gap (Osamura; FIGS. 1 and 10).

Regarding claim 4, the combined reference of Osamura, Takamura, and Kanao disclose the method for manufacturing a spark plug as claimed in claim 1, which comprises providing in step (1) a plate-like intermediate member (Takamura; FIG. 6, item 6) having at least one of a melting point and linear expansion coefficient falling between that of the electrode base metal and that of the chip (Takamura; column 3, lines 2-6); and in step (2), providing the intermediate member between the joint face and the chip, said electrode base metal and said intermediate member (Takamura; FIG. 6), but does not expressly disclose that the plate-like intermediate member has a larger face than that of the flange portion, as claimed by Applicant. It would have been obvious to one having ordinary skill in the art at the time of invention to have the face larger, since such a modification would have involved a mere change in the size of the

component. A change in size is generally recognized as being within the level of ordinary skill in the art.

Regarding claim 5, the combined reference of Osamura, Takamura, and Kanao disclose the method for manufacturing a spark plug as claimed in claim 4, which comprises, in step (2), after the intermediate member is tentatively joined to the joint face through resistance welding (Takamura; column 1 lines 38-45), tentatively joining the second face of the flange portion to the intermediate member through resistance welding (Takamura; column 1, lines 38-45).

Regarding claim 6, the combined reference of Osamura, Takamura, and Kanao disclose the method for manufacturing a spark plug as claimed in claim 1, which comprises locating the joint face on the electrode base metal (Osamura; FIG. 1, item 42) of the ground electrode on a side toward the discharge gap, and welding the chip to the ground electrode while the ground electrode is bent away from the distal end of the center electrode (Osamura; FIG. 1 and column 7, lines 45-51).

Regarding claim 9, the combined reference of Osamura, Takamura, and Kanao disclose the method for manufacturing a spark plug as claimed in claim 1, wherein the weld portion contains components of the chip in an amount in the range of from 30% by mass to 60% by mass (Osamura; column 7, lines 51-53).

Regarding claim 12, the combined reference of Osamura, Takamura, and Kanao disclose the method for manufacturing a spark plug as claimed in claim 1, wherein said weld portion has a shape and composition different from that of said flange portion (Osamura; FIGS. 1 and 10, items 4 and area surrounding item 4).

Regarding claim 27, the combined reference of Osamura, Takamura, and Kanao disclose the method as claimed in claim 1, wherein the ground electrode comprises an electrode base metal (item 2) and a chip (item 3) provided on the electrode base metal at a position for forming the discharge gap, said method comprising applying a laser beam (item 5) to the flange portion of the chip in an oblique direction to the joint face of the electrode base metal of the ground electrode (see FIG. 3).

Regarding claim 28, the combined reference of Osamura, Takamura, and Kanao disclose the method as claimed in claim 1, wherein said tentatively joining comprises resistance welding (Osamura; column 8, lines 11-14).

Claims 13-17 and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osamura (US 6,215,235) in view of Takamura et al. (US 4,581,558)

Regarding claim 13, Osamura discloses a spark plug in figures 1 and 2 comprising: a metallic shell (item 15); a tubular insulator (item 11) fixed in the metallic shell; a center electrode (item 28) fixed in a metallic shell; a ground electrode (item 29) fixed to the metallic shell and forming a discharge gap (item 27) between the center and ground electrodes; a chip (item 3) having a protrusion connected with the ground electrode (FIG. 2, item 3) and formed of a spark erosion resistant material (column 8, lines 4-5); and an intermediate member (item 2) connecting the ground electrode and the chip; wherein the spark plug further comprises a laser-weld portion (item 4) connecting the ground electrode, the chip and the intermediate layer, wherein the laser-weld portion extends both outwardly and inwardly from imaginary extension lines of generatrices of a side surface of the protrusion (see FIG. 2) and extends below a lowest

end of an outer surface of the laser-weld portion and comprises 20% by mass to 80% by mass of the spark erosion resistant material (column 7, lines 51-53), said imaginary extension lines running along the side surface of the protrusion (see FIGS. 1 and 3), but does not expressly disclose that the spark erosion resistant material is a Pt alloy, as claimed by Applicant.

The Examiner notes that the method of forming the device is not germane to the issue of patentability of the device itself. Therefore, this limitation (specifically "and wherein the intermediate member is welded to the chip and the ground electrode by resistance-welding") has not been given patentable weight. Takamura is cited to show a spark plug in figure 6 with a chip (item 3) made of a spark erosion resistant material (column 2, lines 40-45). Takamura teaches that if the chip is made from an alloy containing 20% iridium, nickel and the balance platinum joined through resistance welding to the electrode that the thermal stresses developing from the difference in thermal expansion between the chip and electrode are more readily absorbed by the cushioning action of the chip (column 5, lines 29-53). Takamura also teaches that it is possible to prevent thermal stresses from exerting radical influences on the chip, so that occurrence of rupture along the surface where the chip and electrode are welded can be avoided (column 5, lines 54-61).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Osamura's invention to include the spark erosion resistant material is a Pt alloy as suggested by Takamura to prevent thermal stresses from exerting radical influences on the chip.

Regarding claim 14, the combined reference of Osamura and Takamura disclose the spark plug as claimed in claim 13, wherein the laser-weld portion comprises components of said

chip, said electrode base metal and said intermediate member (FIG. 10, item 4 and column 7, lines 51-65).

Regarding claim 15, the combined reference of Osamura and Takamura disclose the spark plug as claimed in claim 13, wherein the laser-weld portion comprises 30% by mass to 60% by mass of the spark erosion resistant material constituting the chip (column 7, lines 51-53).

Regarding claim 16, the combined reference of Osamura and Takamura disclose the spark plug as claimed in claim 13, wherein said intermediate member (Takamura; FIG. 6, item 6) has at least one of a melting point and a linear expansion coefficient falling between that of the electrode base metal and that of the chip (Takamura; column 3, lines 2-6).

Regarding claim 17, the combined reference of Osamura and Takamura disclose the spark plug as claimed in claim 13, wherein said laser-weld portion extends a distance of D/5 or more inward of said imaginary extension lines, where D represents a maximum distance between said extension lines (FIGS. 1 and 10 and column 7, lines 61-65).

Regarding claim 21, Osamura discloses a spark plug (item 1) in figures 1 and 2 comprising: a metallic shell (item 15); a tubular insulator (item 11) fixed in the metallic shell; a center electrode (item 28) fixed in the metallic shell; a ground electrode (item 29) fixed to the metallic shell and forming a discharge gap (item 27) between the center and ground electrodes; and a chip (item 3) having a protrusion connected with the ground electrode and formed of a spark erosion resistant material (column 8, lines 4-5); wherein the spark plug further comprises a laser-weld portion (item 4) connecting the ground electrode and the chip, wherein the laser-weld portion extends both outwardly and inwardly from imaginary extension lines of generatrices of a side surface of the protrusion (see FIGS. 1-3) and comprises 20% by mass to 80% by mass of the

spark erosion resistant material (column 7, lines 51-53), said imaginary extension lines running along the side surface of the protrusion (see FIGS. 1 and 3) and extends below a lowest end of an outer surface of the laser-weld portion, but does not expressly disclose that the spark erosion resistant material is a Pt alloy, as claimed by Applicant. Takamura is cited to show a spark plug in figure 6 with a chip (item 3) made of a spark erosion resistant material (column 2, lines 40-45). Takamura teaches that if the chip is made from an alloy containing 20% iridium, nickel and the balance platinum joined through resistance welding to the electrode that the thermal stresses developing from the difference in thermal expansion between the chip and electrode are more readily absorbed by the cushioning action of the chip (column 5, lines 29-53). Takamura also teaches that it is possible to prevent thermal stresses from exerting radical influences on the chip, so that occurrence of rupture along the surface where the chip and electrode are welded can be avoided (column 5, lines 54-61).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Osamura's invention to include the spark erosion resistant material is a Pt alloy as suggested by Takamura and Kanao to prevent thermal stresses from exerting radical influences on the chip.

Regarding claim 22, the combined reference of Osamura and Takamura disclose the spark plug as claimed in claim 21, wherein the laser-weld portion comprises components of said chip and said electrode base metal (Osamura; column 7, lines 51-53).

Regarding claim 23, the combined reference of Osamura and Takamura disclose the spark plug as claimed in claim 21, wherein the laser-weld portion comprises 30% by mass to

60% by mass of the spark erosion resistant material constituting the chip (Osamura; column 7, lines 51-53).

Regarding claim 24, the combined reference of Osamura and Takamura disclose the spark plug as claimed in claim 21, wherein said laser-weld portion extends a distance of D/5 or more inward of said imaginary extension lines (Takamura; FIGS. 1 and 10 and column 7, lines 61-65), where D represents a maximum distance between said extension lines (Takamura; FIGS. 1 and 10).

Claims 18, 25-26, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osamura (US 6,215,235) in view of Kanao et al. (US PUB 2001/0030495).

Regarding claim 18, Osamura discloses a method for manufacturing a spark plug (item 1) in figures 1 and 2, which comprises a tubular metallic shell (item 15), a tubular insulator (item 11) extending in an axial direction of the metallic shell and fixed in the metallic shell with opposite ends of the insulator protruding from corresponding opposite ends of the metallic shell, a center electrode (item 28) extending in the axial direction of the metallic shell and fixed in the insulator with a distal end of the center electrode protruding from a distal end of the insulator and with a rear end of the center electrode fixed in the insulator, and a ground electrode (item 29) with one end of the ground electrode fixed to the metallic shell and with the other end portion of the ground electrode and the center electrode forming a discharge gap (item 27) therebetween, and in which the ground electrode comprises an electrode base metal (item 2) and a chip (item 3) provided on the electrode base metal at a position for forming the discharge gap (see FIGS. 1 and 2) and formed of a spark erosion resistant material (column 8, lines 4-5), the method comprising:

(1) providing a chip (item 3) comprising a protrusion (item 3) protruding from a first face of the chip;

(2) tentatively joining, a second face of the flange portion opposite the protrusion to a joint face (item 42) of the electrode base metal of the ground electrode, the joint face being located on a side toward the discharge gap (see FIGS. 1 and 2);

(3) applying a laser beam (item 5) to the flange portion of the chip in an oblique direction to both the joint face of the electrode base metal of the ground electrode (see FIG. 3) and to the side surface of the protrusion (see FIG. 3); and

(4) laser-welding (column 7, lines 45-51) the flange portion to the joint face such that a weld portion (item 4) is formed between the electrode base metal of the ground electrode and the chip to reach points on the second face of the flange portion (FIGS. 1 and 2), the points being located inward of corresponding intersections of the second face of the flange portion and imaginary extension lines of generatrices of a side surface of the protrusion (FIGS. 1 and 2), said weld portion further extending below a lowest end of outer surface of the laser-weld portion (see FIGS. 1 and 2), but does not expressly disclose that the chip comprises a flange portion, said flange extending outward of imaginary extension lines of generatrices of a side surface of the protrusion, as claimed by Applicant. Kanao is cited to show a spark plug in figure 2 with a chip (item 60) that has a flange portion (item 62), the flange extending outward of imaginary extension lines of a side face of a protrusion (item 61). Kanao teaches that the flange portion is formed with the chip (paragraph 44).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Osamura's invention to include the chip comprises a flange

portion, said flange extending outward of imaginary extension lines of generatrices of a side surface of the protrusion as suggested by Kanao for having the flange portion formed with the chip.

Regarding claim 25, Osamura discloses the method as claimed in claim 18, but does not expressly disclose that the spark erosion resistant material is a Pt alloy containing at least any one of 20% to 60% by mass Rh, 10% to 40% by mass Ir, and 1% to 20% by mass Ni, as claimed by Applicant. Takamura is cited to show a spark plug in figure 6 with a chip (item 3) made of a spark erosion resistant material (column 2, lines 40-45). Takamura teaches that if the chip is made from an alloy containing 20% iridium, nickel and the balance platinum joined through resistance welding to the electrode that the thermal stresses developing from the difference in thermal expansion between the chip and electrode are more readily absorbed by the cushioning action of the chip (column 5, lines 29-53). Takamura also teaches that it is possible to prevent thermal stresses from exerting radical influences on the chip, so that occurrence of rupture along the surface where the chip and electrode are welded can be avoided (column 5, lines 54-61).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Osamura's invention to include the spark erosion material is a Pt alloy containing at least any one of 20% to 60% by mass Rh, 10% to 40% by mass Ir, and 1% to 20% by mass Ni as suggested by Takamura to prevent thermal stresses from exerting radical influences on the chip.

Regarding claim 26, the combined reference of Osamura and Kanao disclose the method as claimed in claim 18, wherein that part of the flange portion extending outside said imaginary extension lines being entirely subsumed within the weld portion (FIGS. 1 and 2).

Regarding claim 29, the combined reference of Osamura and Kanao disclose the method as claimed in claim 18, wherein said tentatively joining comprises resistance welding (column 8, lines 11-14).

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Osamura (US 6,215,235) in view of Kanao et al. (US PUB 2001/0030495) in further view of Takamura et al. (US 4,581,558).

Regarding claim 30, the combined reference of Osamura and Kanao disclose the method for manufacturing a spark plug as claimed in claim 18, but do not expressly disclose providing in step (1) a plate-like intermediate member having at least one of a melting point and linear expansion coefficient falling between that of the electrode base metal and that of the chip, and having a face larger than the second face of the flange portion; and in step (2), providing the intermediate member between the joint face and the chip, said weld portion comprising components of said chip, said electrode base metal and said intermediate member, as claimed by Applicant. Takamura is cited to show the manufacturing method of a spark plug in figure 6 with a plate-like intermediate member (item 6) having at least one of a melting point and linear expansion coefficient falling between that of the electrode base metal and that of the chip (column 3, lines 2-6) and in step (2), providing the intermediate member between the joint face and the chip, said electrode base metal and said intermediate member (Takamura; FIG. 6), but does not expressly disclose that the plate-like intermediate member has a larger face than that of the flange portion, as claimed by Applicant. It would have been obvious to one having ordinary skill in the art at the time of invention to have the face larger, since such a modification would

have involved a mere change in the size of the component. A change in size is generally recognized as being within the level of ordinary skill in the art.

Response to Arguments

Applicant's arguments filed October 30, 2007 have been fully considered but they are not persuasive. The Examiner respectfully disagrees with Applicant's arguments. The Examiner first points to Osamura, which discloses the weld portion extends below a lowest end of an outer surface of the laser-weld portion (see FIG. 10). The Examiner also points to figure 3 of Osamura, which shows the laser beam being applied to multiple areas of the chip, not just one spot. Hence, Applicant's limitations are met as set forth.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natalie K. Walford whose telephone number is (571)-272-6012. The examiner can normally be reached on Monday-Friday, 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571)-272-2457. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

nkw

1/22/08

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